

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

AMPEX CORPORATION,

Plaintiff,

V.

EASTMAN KODAK COMPANY,
ALTEK CORPORATION, and
CHINON INDUSTRIES, INC.,

Defendants.

C.A. No. 04-1373 (KAJ)

INITIAL DISCLOSURE OF EXPERT TESTIMONY OF ERIC C. ANDERSON

I. BACKGROUND

1. I have been retained by the law firm of Ropes & Gray on behalf of Ampex Corporation (“Ampex”) as an independent expert and expert witness in connection with *Ampex Corporation v. Eastman Kodak Company, et al.*, C.A. No. 04-1373(KAJ)). I understand that this report is being submitted in connection with this case.

2. I have worked extensively in the fields of digital electronics and computer science, including digital image processing, for over thirty years. My expertise and experience include digital video technology, including digital still cameras.

3. I am currently a consultant, working for my own company, Anderson Creations. I also have a part-time employment relationship with FlashPoint Technology, Inc., where I serve as a consultant with respect to that company's licensing program involving previously issued patents that name me as an inventor.

4. I received a B.S. in Electrical Engineering from the University of Rochester in 1968, and both an M.S. and an E.E. degree in Computer Science from MIT in 1971.

5. While at MIT, I worked in the Electronic System Laboratory, and developed a multiple font display terminal, the development of which served as the basis for my master's thesis.

6. From 1971 to 1987, I worked at Clear Light, Inc., as chief engineer and ultimately Executive Vice President of Engineering and Manufacturing. At Clear Light, I was responsible for the development of over 55 products in the area of computerized control of media devices.

7. From 1987 to 1996, I was in various engineering management positions at Apple Computer, Inc., including work on developing digital still cameras and other digital imaging products and applications. I was chief architect for a number of such projects.

8. From 1996 to 2001, I was Chief Technology Officer of FlashPoint Technology, Inc., during which time I helped develop the Digital Operating System for digital still cameras, and helped a number of companies implement that technology into their cameras and photo printers. These companies included Hewlett Packard, Sharp, Konica, Minolta, Pentax, Epson, and Eastman Kodak.

9. I have received over 100 patents, most of which relate to digital still cameras technology. I have received numerous awards, including being named Inventor of the Year in 2003 by the Silicon Valley Intellectual Property Law Association.

10. My detailed qualifications and background are set forth in my resume, attached at Tab A to this Report.

II. OPINIONS AND BASES THEREFORE

11. I understand that I will be called by Ampex to testify as an expert witness in this case on technical issues, including human factors and user interface issues arising from the design and use of digital still cameras.

12. If called upon to testify in this action, I will testify, *inter alia*, that during my work with digital still cameras, I became familiar with the user interface considerations that inform the design and implementation of digital still cameras. One very important such consideration is the need for rapid, convenient, and expeditious system response to user commands. Natural human behavior, reinforced by consumer expectations, instills in consumers a rigorous expectation that such consumer electronics devices as digital still cameras must have as rapid a response as possible to any user-activated control. The average user becomes very impatient and dissatisfied unless the response to pressing a button or actuating some other control is as fast as possible. In particular, if consumers, through personal experience, by word-of-mouth, from product reviews, or otherwise, realize that a given product is slower than a corresponding competitive product, the market consequences to the seller of the slower product can put that seller at a significant disadvantage.

13. While I was at FlashPoint, a decision was made for financial reasons to build a digital camera for Minolta using the LSI Logic DCAM-101 processor. Because the processor was too slow, the product was extremely sluggish and frustrating for consumers, and was widely panned in the Japanese media. As a result, FlashPoint's Digita system was labeled as slow and poor performance option for Japanese companies. As could be expected, the negative

impact of this damaged the company significantly, and again demonstrates the importance of speed of response for the consumer market product.

14. During my time as CTO of FlashPoint Technology, Inc., I was responsible for the technical presentations and negotiations with all of FlashPoint's customers, including virtually all of the Japanese electronics companies (Sharp, Epson, Sony, Nikon, Canon, Panasonic, Hitachi, Minolta, etc). In these negotiations and presentations, one of the central issues for the customer base was performance – specifically responsiveness. For example, we developed a method of creating both a thumbnail and what we called a screen-nail – an image just the right size to fill up the LCD – to be stored with the full-size image. This allowed us to speed up the image review process dramatically, without adding high-cost hardware. These various techniques, all described in my issued patents, were to improve speed-of-response and satisfy the requirements of our customers.

15. These speed-of-response considerations apply to one of the more important types of user command and commensurate system responses: the need to rapidly review the images that have been captured by the digital still camera. To that end, digital still camera manufacturers have implemented a feature allowing review of a number of reduced size versions of pictures (sometimes called thumbnails) that are stored in the camera. For example, a commonly-provided feature, which Kodak calls “multi-up,” allows the user to review in an array, a number of thumbnail versions of the images that have been captured. This allows the user to quickly and efficiently review the images that have been captured. It is an important feature in many digital still cameras, and particularly in all of the currently marketed Kodak cameras. In my experience, the inability of a camera manufacturer to offer digital still cameras that included such a feature would severely undercut the marketability of a digital still camera product line, in

comparison with competing camera lines that offered such a feature. Likewise, the marketability of a digital still camera product line that included such a multiple image review feature with a sluggish response, or response that was noticeably slower than competitive products, would be severely undercut.

16. If called upon to testify in this action, I would testify that, based on my experience as the Image Capture Engineering Manager and Chief Architect of Digital Still Camera development at Apple Computer, Inc., the Chief Technology Officer of FlashPoint Technology, Inc., and in my subsequent work as a consultant and active participant in the digital still camera user community, I know that many owners and customers of digital still cameras, including the current Kodak product line of cameras, use and heavily rely on the above-discussed feature of these cameras (“multi-up”, in the case of Kodak’s cameras).

17. The ability of memory cards to hold many images makes review modes such as multi-up even more important to users. For example, 1 GB memory cards can hold 100-300 images (depending on resolution). (This was also the case in 2000 because even though the storage capacity of memory cards was smaller, so was the resolution of the images they stored.) Scrolling through images one at a time in order to locate a particular image can be very time consuming. Using the multi-up feature to locate a particular image is far more preferable. With multi-up screens showing only up to nine images at once, a user may have to scroll through 30 screens of thumbnails to find a particular image. So, the speed of the scroll from one group of thumbnails to the next becomes even more important since any delay in scrolling from one screen to the next may be experienced by the user up to 30 times.

18. I understand that one aspect of the invention of the ‘121 patent is that, for each full size picture that is captured, a corresponding reduced size picture is also automatically

generated and stored along with the full size picture. Then, during review mode, a browse screen consisting of a matrix of reduced size pictures can be rapidly assembled from the stored, reduced size pictures. This rapid generation of a browse screen is one of the advantages of the invention over the prior art. Significantly, this advantage remained important over the years since the patent was applied for in 1983, and remains so today, even though the processing speeds of digital electronic circuits has become faster and faster. This is because the number of pixels in the captured image has grown just as rapidly, which fact increases the processing demands of the size reduction process, thus preserving the advantage of the invention in prestoring the reduced size pictures for later rapid retrieval.

III. COMPENSATION

19. I am being compensated for my work on this matter at my usual consulting rate of \$300 per hour.

IV. OTHER CASES IN WHICH I HAVE TESTIFIED AS AN EXPERT AT TRIAL OR BY DEPOSITION

20. I have not testified previously as an expert at trial or, other than the deposition in the ITC action that is related to this case, by deposition within the preceding four years.

Date: 3/23/06

A handwritten signature in cursive script, appearing to read "Eric C. Anderson".

Eric C. Anderson

CERTIFICATE OF SERVICE

I, Julia Heaney, hereby certify that on March 24, 2006, I caused to be electronically filed the foregoing with the Clerk of the Court using CM/ECF, which will send notification of such filing(s) to the following:

Paul M. Lukoff, Esquire
David E. Brand, Esquire
Prickett, Jones & Elliott, P.A.

and that I caused copies to be served upon the following in the manner indicated:

BY EMAIL

Paul M. Lukoff, Esquire
Prickett, Jones, Elliott, P.A.
1310 King Street
Wilmington, DE 19899

Michael J. Summersgill, Esquire
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, MA 02109

/s/ Julia Heaney
Julia Heaney (#3052)